SUPPORT DESIRED GROWTH



Desired patterns of conservation

and development

Overview

For Stonington to preserve those things that the community values and to foster the growth and change that the community wants, it must also support the desired conservation and development activities with appropriate infrastructure and services.

infrastructure and serinfrastructure and serappropriately
supported.

Community Facilities



Pedestrian / Bicycle Circulation



Vehicular Transportation



Utilities



Address Community Facility Needs

Historically, many of the community services and facilities in Stonington were oriented towards the villages and the Borough. As a result, the community has sometimes ended up with multiple facilities for municipal services.

During the planning period, Stonington will need to evaluate the configuration of local facilities and services (and consider town-wide needs) in order to efficiently and cost-effectively meet local needs.

When addressing growing community facility needs, new or expanded facilities should be located according to the following hierarchy:

- 1) enlarge the existing facility'
- 2) relocate within core village areas, or
- 3) relocate within village fringes.

Village core and fringe areas are identified on the map on page 55.

The following items are the main issues among many that need to be addressed:

- enlarging or relocating the Town Hall,
- reducing fragmentation in providing emergency services,
- addressing the needs of the Public Works Department, and
- meeting the changing recreation needs of all Stonington residents.

Address Town Hall Needs

Built in 1929, Stonington Town Hall suffers from a shortage of meeting rooms, suitable office space, storage space and bathrooms. In plain terms, the building is inadequate to meet community needs.

Interestingly, while 59 percent of residents rated improving Town Hall as a moderate improvement priority in the telephone survey, when asked directly, only 36% of residents felt that Town Hall needs to be expanded.

Nevertheless, there is little doubt that Stonington needs a better facility to meet current (and future) community needs.

While an addition has been planned to address the shortage of meeting rooms, this addition is more of a 'band-aid" than a realistic solution to the space issues at Town Hall. There should be sufficient land surrounding Town Hall to construct an addition capable of meeting not only current space needs but future needs as well. Planning for such an addition should begin early in the planning period. In order to accommodate the necessary floor space, the Zoning Regulations may need to be amended to modify the floor-area-ratio (FAR) for community facilities in the residential zones.

In the interim, electronic document management can be used to address storage space needs in the Town Clerk's vault and throughout Town Hall.

Address Public Safety Services

Stonington is well served from an emergency services standpoint with a paid police department, six volunteer fire departments and three volunteer ambulance corps (most with new or recently renovated facilities).

Encourage Volunteerism

The fire departments and ambulance corps are served by volunteers, in some cases supplemented by minimal paid full-time staff to respond during weekdays. In the future, recruiting and training volunteers is expected to be a growing issue due to increased training requirements. Some communities that were unable to continue attracting and retaining volunteers have been forced to establish paid fire departments - a much more expensive undertaking than a volunteer department.

Study Ways to Improve Efficiency and Reduce Redundancy of Fire Departments

The current system of six independent fire departments funded by 11 different organizations may be creating inefficiencies and inequities between departments in terms of funding, staffing, training, equipment, facilities, communications, and response times. A comprehensive study of the fire services should be conducted to determine whether consolidation or closer coordination between departments could result in manpower and equipment economies of scale, more consistent training, better communications and improved response times.

Address Emergency Communication Issues

The Borough, Quiambaug and Wequetequock Fire Departments as well as Stonington Volunteer Ambulance Corp have obsolete communications equipment. Radio repeaters have been recommended to close gaps in radio coverage.

Police Station



B. F. Hoxie Engine Company



GASB 34

Government Accounting Standards Board Statement 34 (GASB 34) created new standards for state and local financial reporting, making financial reports more useful and easier to understand from the perspective of both residents and financial institutions.

GASB 34 now requires municipalities to account for all capital assets, including buildings, equipment, vehicles, roads, sewers, etc. As municipal assets depreciate, they can impact the community's financial health and ability to bond for future capital improvement projects.

Rather than allow all of these assets to depreciate, municipalities can maintain and even improve the value of major assets such as roads, bridges and sewers through an Asset Management Plan that tracks their condition and schedules regular maintenance to prevent their physical deterioration and premature failure.

Address Public Works Issues

Like the Fire Departments, the public works function is also fragmented between the Town, Borough and several fire districts that contract for public works functions.

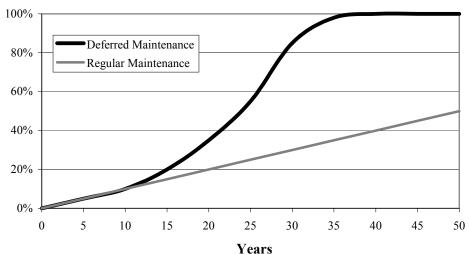
Improve Funding of Public Works Maintenance

The Town's Public Works Department is hampered in accomplishing their mission by a shortage of personnel, inconsistent road maintenance funding, lack of asset management, and minor facility needs.

While two-thirds of residents ranked the overall condition of Town roads as good to excellent, some roads are beginning to show severe wear. As Stonington continues to grow and new roads and drainage facilities are added, the Public Works Department is continually being asked to keep pace without adding personnel. At the same time, funding for maintenance has been sporadic.

This is a significant issue that will likely cost the Town more in future years. While some people may choose to ignore the increasing need for infrastructure improvements and maintenance, GASB 34, the new accounting standards for municipalities will increase the visibility of under-funded infrastructure maintenance (see sidebar).

The following chart illustrates how deferred maintenance can shorten the lifespan of a road and increase repair costs over time.



Road Deterioration with Regular Maintenance vs. Deferred Maintenance

To avoid more costly repairs and premature replacement of roads and other improvements, Stonington should seek ways to provide more consistent funding and adequate staff to properly maintain roads, sidewalks and storm drainage facilities. An asset management program would help to track the condition of improvements and plan for road, drainage, sidewalk, and other maintenance needs before institutional memory is lost to retirement of key personnel.

Consider Consolidating Public Works Functions

To address the fragmentation of public works functions throughout Stonington, the various entities such as the Town, Latimer Point Association, Lord's Point Association, Stonington Public Schools and possibly the Stonington Borough (that each provide or contract for public works services) should consider consolidation of public works functions under one department to take advantage of economies of scale in labor, equipment and materials. If necessary, it can be done on a contractual basis (in much the same way that fire protection is provided to the private associations) to maintain the independent ownership of roads by each entity.

The Public Works Department has minor space needs including office space and an additional bathroom in the Old Highway Garage. These items are included in the Capital Improvement Program (CIP) and should be constructed as planned.

Relocate the Dog Pound

The dog pound is adequate in size and functionality for Stonington's needs but the approximately 30 year old facility is in serious disrepair due to a settling foundation (built on the former landfill). Pending the decision on a stray cat ordinance that would require a small addition, the facility should be replaced.

Old Highway Garage



New Highway Garage



Address Recreation Needs

Town recreation facilities are limited, with private organizations such as the Mystic YMCA, Pawcatuck Little League and Stonington Community Center doing an excellent job of filling many of the Town's recreation facility and activity needs.

Consider Public Rather Than Private Facilities

While 60% of residents surveyed agree that Stonington has adequate recreation facilities, many of these facilities are private. Residents are often dependent on three independent community/neighborhood centers to meet their recreation needs with some programs funded in part by the Town and the balance coming from membership fees, program fees and grants.

Overall, the fragmentation of these services may be leading to inefficiencies in the provision of services. While this system keeps municipal property taxes low, the different and often limited focus of each of these organizations can require some families to pay membership and program fees to multiple private organizations to gain access to the recreation facilities and services they need.

As Stonington continues to grow, the population may outstrip the ability of these community centers to meet the growing demand for services and the Town may wish to explore options for supplementing the village and Borough community centers to better meet town-wide social and recreational needs.

Seek Additional Field Space

The major recreation need identified by Town staff is additional multi-purpose fields. The continuing growth in the popularity of field sports such as field hockey, lacrosse and soccer are overtaxing available fields, causing them to deteriorate. Additional multi-purpose fields would alleviate scheduling pressure on existing fields and allow overworked fields to be rotated so that they have time to recover. Land is available for additional fields at both the Recreation Complex and adjacent to the Pawcatuck pollution control facility.

Mystic YMCA



Additional Field Space is Needed



Seek a Location for a Town Beach

Acquiring waterfront property suitable for a Town beach is an open space and coastal resource priority. Nearly two-thirds of the townwide survey respondents agreed that the Town should acquire waterfront open space for a Town beach.

It is estimated that 15 percent of Stonington's shoreline is considered beach. The Town should inventory and then try to obtain suitable privately owned beach property through purchase or donation, if and when available. If outright purchase is not an option, creative techniques such as securing a right of first refusal or allowing continued life tenancy by the owner after purchase can be explored.

If such a beach is not attainable, the Town should consider providing alternative outdoor water recreation such as a pool or less expensive alternatives such as an "aqua fountain" or "splash pad" to allow children to stay cool on hot summer days.

Address Other Recreation Issues

The Town and Board of Education are both experiencing storage problems, requiring the gymnasium at the Board of Education offices to be used for overflow storage needs. This gymnasium is also needed to alleviate a shortage of indoor recreational facilities. Alternative storage should be found to free this facility for its intended use. Other minor issues include: updating playground equipment, addressing unsafe conditions, and providing portable or permanent toilets at isolated recreation facilities.

Acquire Waterfront Property



Reclaim the Gym at the Board of Education



Address Human Service and Senior Service Needs

The mature adult population (ages 55+) accounts for the majority of the human services caseload and this population segment is expected to increase to over one-third of population by 2020. The Human Services Department should anticipate increased demand for human/senior services as the senior population continues to grow to ensure adequate staffing and facilities.

While the office needs of the Human Services Department are adequately met (in a newly renovated facility), the Department is dependent upon private community centers and the schools for many programs and activity space. Senior services such as recreation programs, dial-a-ride, meals on wheels and hot meals programs are distributed across many organizations and in various locations.

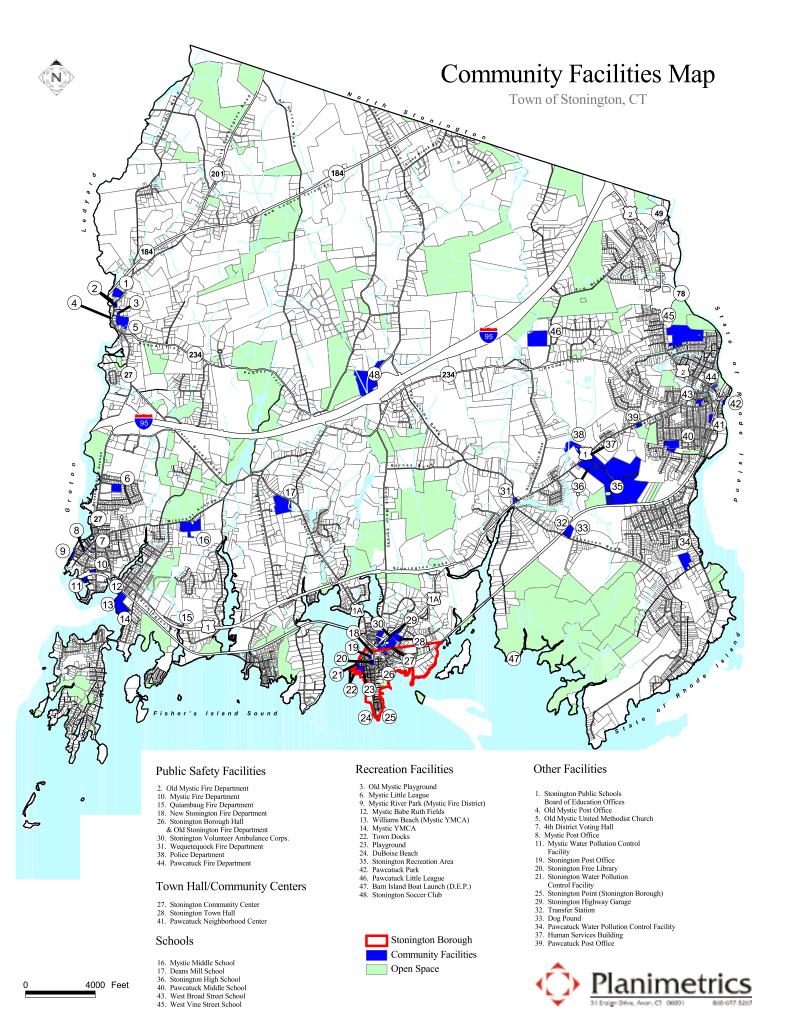
The Town and its residents must continue to support the three community centers in their efforts to meet the growing demand for senior services anticipated during the planning period and beyond.

Support the Libraries

Library services are provided by three independent library associations funded in part by the Towns of Stonington, Groton and Westerly with the balance coming from donations and other sources. All three libraries are at capacity, requiring extensive weeding and reorganization to make room for new materials. Capital improvement funds must be continually raised from private sources and annual operating budgets limit staffing levels, often reducing hours of operation.

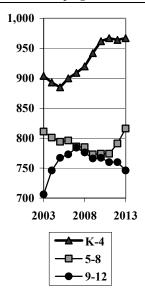
As population growth and space constraints increasingly limit their ability to meet residents' needs, the Town and its residents will need to provide increasing support to the three libraries in their efforts to provide library services at the village and Borough level.

In the telephone survey, 82 percent of residents ranked library improvements as a moderate or high priority.



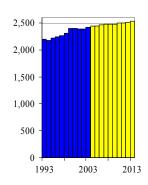
Sites that are purchased in advance of their need (for educational purposes) are a prudent local investment and can be used for open space and recreation in the meantime.

Projected Enrollment by Grade Groupings



Source: State Department of Education

Historic and Projected (K-12) School Enrollment



Source: State Department of Education

Address School Facility Needs

School facilities are important since education funding totals about 58 percent of the local budget. Local residents are supportive of education and 59 percent of residents surveyed ranked school improvements as a high priority.

Stonington utilizes six schools in three age groupings. Their configuration and capacities are as follows.

School	Grades	Current Enrollment	Capacity ¹	Cumulative Capacity ¹
Deans Mill School	K-4	518	599-600	1,227
West Vine Street School	K-2	242	281-312	to
West Broad Street School	3-4	183	347-360	1,272
Mystic Middle School	5-8	468	454-600	803 to
Pawcatuck Middle School	5-8	345	349-480	1,080
Stonington High School	9-12	705	$800-880^2$	$800 \text{ to } 880^2$
Total	K-12	2,461	2,830	to 3,232

Source: Stonington Schools ¹Low value is based on square feet per student, high value is based on class sizes of 22-24 students ²As renovated

According to new Connecticut Department of Education (DOE) projections, Stonington's school enrollments are expected to increase throughout the planning period.

In the elementary grades (K-4), enrollment is expected to decline before increasing again towards the middle of the planning period. While not expected to approach the cumulative capacity of the three elementary schools, individual schools may experience enrollment pressure due to the geographic distribution of students, which can be addressed by redistributing students between schools.

In the middle schools (5-8), enrollment is expected to decline before returning to current levels towards the end of the planning period. Adequate capacity is expected to be available.

High school enrollments (9-12) are expected to increase to the year 2007 before gradually declining. The Stonington High School is currently undergoing approximately \$40 million in renovations and additions that should bring capacity well above the peak enrollment anticipated for 2007.

Between 1980 and 2000, the ratio of public school students to total population in Stonington (enrollment ratio) peaked at about 15 percent. If Stonington becomes a community of 25,000 residents and the enrollment ratio again reached this level, total school enrollment of about 3,750 students could result, far exceeding the total capacity of the current school system.

During the planning period, Stonington should evaluate its long term educational strategy to ensure that adequate sites are available to accommodate the eventual educational facility needs of the community. Sites that are purchased in advance of their need are a prudent local investment and can be used for open space and recreation in the meantime.

Community Facility Strategies

- 1. Build an addition to Town Hall to meet current as well as future needs, modifying the FAR regulations if necessary.
- 2. Provide adequate funding and staff to properly maintain roads, sidewalks and storm drainage facilities and avoid more costly repairs or replacement.
- 3. Create an asset management program to plan for road, drainage, sidewalk, and other maintenance needs.
- 4. Investigate consolidating townwide public works functions under one department (on a contractual basis if necessary) to take advantage of economies of scale.
- 5. Address space needs in the Old Highway Garage.
- 6. Construct additional multi-purpose fields at the Recreation Complex and/or adjacent to the Pawcatuck pollution control facility.
- 7. Acquire waterfront property suitable for a Town beach or provide alternative outdoor water recreation such as a pool, "aqua fountains," or "splash pads."
- 8. Update playground equipment, address unsafe conditions and provide toilets at recreation facilities as needed.
- 9. Address Town/Board of Education overflow storage needs to free the gymnasium at the Board of Education offices for recreational use.
- 10. Replace the Dog Pound.
- 11. Continue to support the three libraries in their efforts to provide library services at the village and Borough level.
- 12. Explore options for supplementing the three community centers in the future to better meet townwide social and recreational needs.
- 13. Monitor capacities of individual schools to determine if additional space will be needed. If growth cannot be accommodated in place, appropriately located land should be secured before it is lost to development.

Address Vehicular Transportation Needs

An efficient transportation system that safely combines private automobiles, pedestrians, bicycles, paratransit and mass transit can contribute significantly to overall quality of life by meeting the transportation needs of all residents, regardless of age or ability.

Access Management

Direct access to arterials should be restricted, requiring shared driveways, interconnected parking lots, access roads and similar measures to reduce curb cuts and maximize the movement of through traffic. Acceleration/Deceleration lanes could also be required at access points to facilitate the efficient flow of traffic.

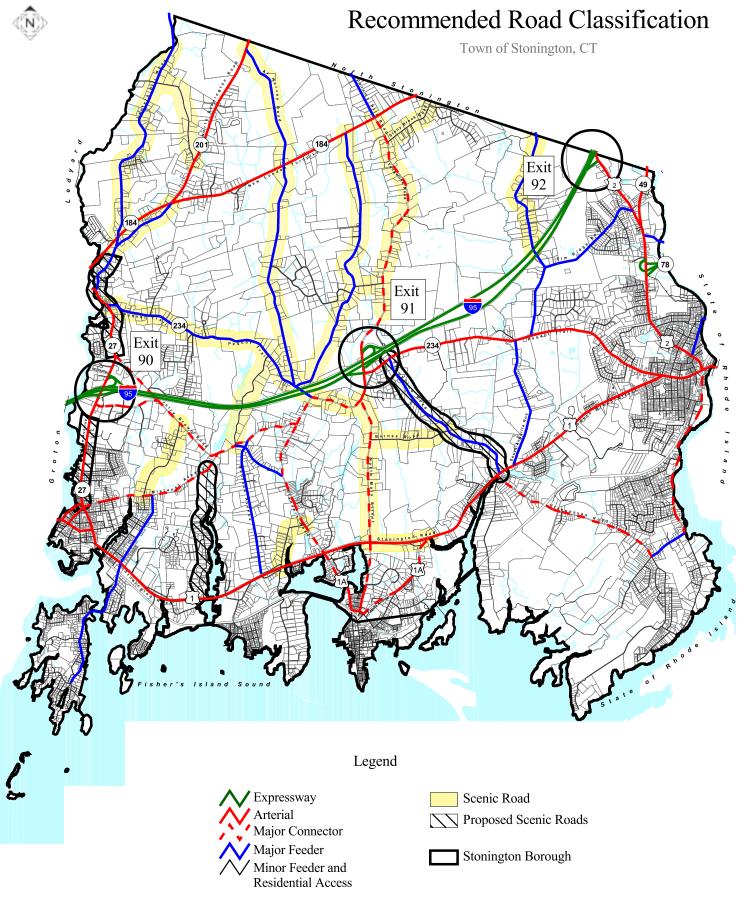
Major connector and major feeder roads can provide both direct and indirect access to adjacent land but access management measures should be encouraged.

Minor feeder and residential access roads should provide direct access.

Relate Road Design to Desired Land Use

Road classifications are important for matching the design of roads to their location, adjacent land uses and function. Recommended road classifications are outlined in the table below and illustrated on the facing page.

Recommended Road Classifications			
Limited Access	• Interstate 95	• Route 78	
Arterials	Route 1Route 1ARoute 2Route 27Route 49	 Route 78 Route 184 Route 201 Pequot Trail from N. Main Street to Route 1 	
Major Connectors (Collector Road)	 Coogan Boulevard Flanders Road Greenhaven Road Holmes Street Jerry Brown Road Mechanic Street Mistuxet Avenue 	 Pellegrino Road North Main Street Pequot Trail from Flanders Road to N. Main Street River Road Taugwonk Road Willow Street 	
Major Feeder Roads (Collector Road)	 Al Harvey Road Deans Mill Road from Mistuxet Avenue to Flanders Road Elm Ridge Road Farmholme Road Hewitt Road Jeremy Hill Road Main Street 	 Mary Hall Road Pequot Trail from Route 27 to Flanders Road N. Anguilla Road N. Stonington Road S. Anguilla Road Stillman Avenue Wheeler Road White Rock Avenue 	
Minor Feeder Roads (Local Streets)	Boulder Avenue Old North Road	 All remaining roads except non-through street serving 15 homes or less. 	
Residential Access (Local Streets)		• Non-through street serving 15 homes or less.	





New Scenic Roads

Strategies to make new or reconstructed roads more scenic and enhance Stonington's community character might include:

- narrower paved widths,
- slower design speeds
- steeper grades,
- alternative drainage systems,
- limiting grading and tree clearing within the rightof-way,
- retaining or building stone walls,
- developing guidelines for plantings and tree trimming/maintenance;
 and
- planting street trees.

Review and Revise Road Construction Standards

Stonington's current road design standards may be excessive for the intended purpose of many classifications. Roads that are too straight, too flat, or too wide encourage speeding, require excessive clearing and grading, and potentially detract from community character.

While Stonington has a number of scenic roads today, the Town's current road standards do not allow for new construction of the scenic roads in the future.

The road design standards should be examined by a comprehensive group of stakeholders and revised to strike a balance between function (safety, capacity and drainage) and scenic character so that Stonington can build, restore and reconstruct scenic roads of the future (see page 51 for more scenic road recommendations).

Address Desirable Road Improvements

The Connecticut Department of Transportation (ConnDOT) has identified nine places in Stonington where accident experience may indicate problem areas:

- Route 1 between Gravel Street and Cottrell Street,
- Route 1 at Mason's Island Road.
- Route 1 between Hewitt Road and Long Wharf Road,
- Route 2 at Elm Ridge Road,
- Route 2 between Lincoln Avenue and Route 1,
- Route 2 at Route 1,
- I-95 at Pequot Trail (Exit 91),
- I-95 at Route 2 (Exit 92), and
- I-95 between Route 2 and Route 49.

The intersection of Route 1, Route 2 and Mechanic Street, and Route 1 between Gravel and Cottrell Streets are of particular concern as accident rates are much higher than anticipated for their traffic load and configuration.

To ensure that these and other State roads and intersections continue to function safely and efficiently, the Town should pursue funding for the design and construction of necessary improvements. Such funding can be coordinated through the Southeastern Connecticut Council of Governments' (SECCOG) Transportation Improvement Program (TIP).

The Town of Stonington, through its Public Works Department is responsible for maintaining Town roads and has scheduled the following roads for construction or major repairs:

- Burdick Lane build connection to Cronin Avenue
- Cove Road realign curve
- Reynolds Road rebuild
- North Main Street rebuild
- Washington Street (Mystic) rebuild

Vehicular Transportation Strategies

- 1. Classify roads according to both their function and the desired pattern of growth it is intended to support.
- 2. Create context sensitive road design standards.
- 3. Work with ConnDOT and SECCOG to address critical accident locations on State highways.
- 4. Complete scheduled safety improvements on Town roads.

Route 1 at Mechanic Street



Neighborhood Street



Address Pedestrian and Bicycle Circulation

While sidewalks are not always necessary in suburban and rural areas, there are instances where residents and visitors could benefit from sidewalks and trails that allow them to safely walk or cycle between the villages, the Borough and other activity nodes such as the areas around Exits 90 and 92, the Stonington High School/Recreation Park campus at Spellman Drive, or the grocery stores located just outside of Mystic and Pawcatuck.

Where residential densities permit, pedestrian access should be provided within walking distance of schools, parks and playgrounds. Sidewalks should be incorporated into all new development proposals and Town road improvement projects in these areas.

Sidewalks strictly for pedestrians should be at least five feet wide. Improved trails for both bikes and pedestrians should be at least eight feet wide. Bicycles can also be safely accommodated on major roads through the use of wide shoulders, bicycle friendly catch basin grates and even dedicated bike lanes.

All major road construction projects should be required to consider bicycle accommodations during the design phase and incorporate them where possible and within fiscal reason. The Planning and Zoning Commission should also consider requiring bicycle racks where appropriate during the site plan approval process.

Pedestrian / Bicycle Transportation Strategies

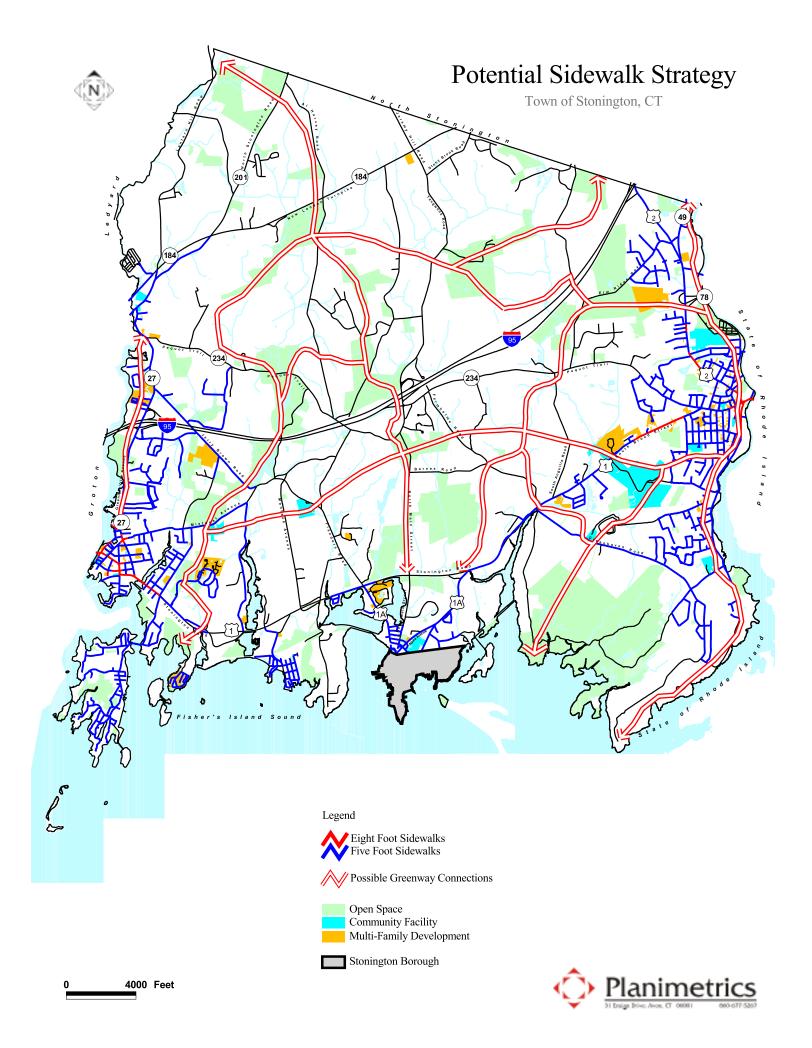
- 1. Connect villages, Borough and other activity nodes with sidewalks or trails.
- 2. Require sidewalks as part of all development proposals and road improvement projects within walking distance of schools parks and playgrounds
- 3. Consider bicycle accommodations in all road improvement and site development projects.

Bicycle Shop in Mystic



Consider Bicycle Accommodations





Address Transit Options

Southeast Area Transit (SEAT) provides bus service to Stonington but has cut back service to only 14 daily stops at Olde Mistick Village on a route between the New London train station and Foxwoods Casino. Bus service should be explored to the two main villages and Borough, which could benefit from direct bus service to employment centers such as Groton, New London and the casinos.

Jitney bus service is available during summer months between Mystic and Exit 90 attractions for a nominal fee but ridership has been low. This valuable service has the potential to reduce traffic and parking issues in Mystic and can even act as a bridge service between Mystic and the SEAT bus stop at Olde Mistick Village during the summer. To increase ridership, the service should be promoted through clearly marked stops, informational signage, brochures at major attractions and other means.

Dial-a-Ride services are provided free to elderly and disabled residents by the Pawcatuck Neighborhood Center and for a nominal fee, by the Eastern Connecticut Transportation Consortium. The Stonington Community Center offers daily rides to congregate lunches at the Center and a weekly trip to the grocery store. As Stonington's elderly population continues to grow, these programs should be carefully monitored to ensure that they continue to be able to meet residents' needs.

Despite fares and schedules that make it generally unsuitable for daily commuting, Amtrak Northeast Corridor Service is available in both Mystic and Westerly seven days a week to serve residents and visitors alike. Stonington should pursue improved service to Mystic to further enhance this valuable transportation asset.

Transit Strategies

- 1. Explore expansion of SEAT bus service to serve the two main villages and the Borough.
- 2. Work with Mystic Chamber of Commerce to improve and promote Mystic jitney bus service.
- 3. Pursue improved Amtrak service to Mystic.

Mystic Train Station



Amtrak Train



Modify Parking and Other Standards

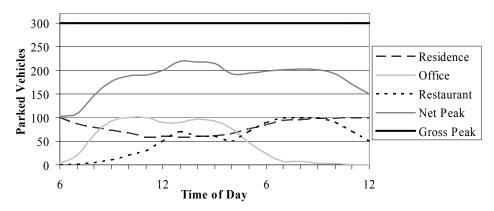
Communities use parking standards to ensure that each use has sufficient parking to meet its own needs without impairing traffic, public safety or the use of adjacent land. Unused parking wastes valuable land, creates additional stormwater runoff and detracts from community character by adding unnecessary pavement.

Shared Parking Requirements

Mixed-use village areas with walkable streets have lower parking needs than the typical single-use developments that most zoning regulations are intended for. An overabundance of parking can detract from the village ambience. Suburban shopping centers with a mix of uses or other mixed use developments can also result in an unnecessary amount of parking.

The following chart (explained in the sidebar) illustrates how a mix of residential, office and restaurant uses, each requiring a minimum of 100 parking spaces under the current regulations, would actually use 27% less parking than the minimum requirement during the net peak hour (1:00 p.m.). By allowing shared parking requirements, 81 unnecessary parking spaces and all of the negative impacts associated with them can be avoided.

Peak Parking Demand



Section 7.10.2 of the Zoning Regulations allows reductions in off-street parking based on the availability of public parking and other unspecified reasons. Overreliance on available public parking can lead to a shortage of parking if multiple establishments are given credit for the same parking spaces. Section 7.10.2 should be modified to include specific conditions under which parking can be reduced such as offset peak parking demands, captive markets and availability of mass transit or public parking

Parking Requirements Outside Villages

Stonington's retail parking standard is relatively high compared to other recognized standards. Since parking needs per square foot tend to decrease with the size of the building, the PZC should consider adopting graduated minimum parking requirements that also decrease with the size of buildings and place a maximum parking requirement to limit the deliberate overbuilding of parking spaces.

The Planning and Zoning Commission is currently considering changes to the parking regulations that incorporate many of these strategies.

Peak Parking Demand

The chart to the left illustrates the hourly parking requirements for a mix of residential, office and restaurant uses, each totaling 100 parking spaces under the Zoning Regulations for a gross-peak parking requirement of 300 parking spaces. Because the parking standards are not time sensitive, the minimum parking requirements apply 24 hours a day as illustrated by the gross-peak parking demand of 300 spaces.

The three lowest lines on the chart represent the average hourly parking demands for residential, office and restaurant uses throughout the day. The chart clearly illustrates that the parking demands of these different uses vary significantly from one another.

The second highest line represents the cumulative hourly parking demand of the three uses or net-peak demand. What this line shows is that the net-peak parking demand of the three uses is 81 to 200 parking spaces lower than the gross-peak demand of 300 parking spaces required by zoning (depending on time of day).

Source: Urban Land Institute Shared Parking Requirements

Landscaping

Landscaping in and around parking lots is another way to maintain community character. By screening parking lots with stone walls, berms or landscaping, their visual impact can be reduced. Landscaping within parking lots can define parking and travel lanes, provide shade, filter views of large buildings, provide snow storage and recharge groundwater.

In areas outside of the Aquifer Protection Zone and especially within the Coastal Boundary, groundwater recharge can be increased by reducing impervious pavement through the use of alternative paving materials such as porous block and grass pavers. These paving systems are typically used in limited applications such as fire lanes to the rear of buildings and peak seasonal parking that is unused for most of the year.

Lighting Standards

In an effort to create a sense of safety and security, lighting for parking lots and commercial buildings can often be excessive for their intended purpose, creating light pollution, glare, and impairing the use of adjacent properties. Full-cutoff lighting reduces glare and directs light downward by recessing light bulbs and lenses inside opaque light fixtures.

The PZC should require full-cutoff fixtures for all high-intensity commercial lighting. A separate ordinance would be needed to prohibit the practice of installing floodlights on utility poles within a road right-of-way to illuminate adjacent commercial properties and other forms of unnecessary light pollution.

Stormwater Management

Under guidelines being developed by the Conservation Commission as part of a Stormwater Management Plan, applicants for new developments will be required to enter into stormwater management agreements with the Town to maintain their private stormwater management facilities in accordance with the EPA's new National Pollution Discharge Elimination System (NPDES) Phase II guidelines (see page 41).

Parking and Other Standards Strategies

- 1. Create graduated minimum retail parking requirements and consider parking maximums for larger developments.
- 2. Allow parking reductions for mixed-uses with offset peak parking demands.
- 3. Create more stringent parking lot landscaping requirements for all commercial areas.
- 4. Allow alternative pervious paving materials for appropriate applications (such as summer overflow parking) outside Aquifer Protection Zones.
- 5. Modify lighting requirements to reduce excessive lighting
- 6. Adopt an ordinance to prohibit off-site floodlights and other sources of light pollution.

Provide For Adequate Utility Services

Encourage Provision of Adequate Water Service

The availability of adequate water and sewer capacity is critical to supporting commercial and industrial activity as well as the medium- to high-density residential patterns found in and around Stonington's many villages and the Borough. Domestic water is provided by two major water systems as well as five minor systems serving isolated areas.

The Aquarion Water Company (Aquarion) serves the greater Mystic area and Stonington Borough, drawing its water from both the Mystic Reservoir (1.0 million gallons per day or MGD) and a high-capacity well system (1.0 MGD). Mystic Reservoir water is treated at the Deans Mill treatment plant before being distributed.

In order to meet anticipated needs during the planning period, Aquarion will need to increase capacity during the next 10 years through either new wells or interconnection to adjacent water systems.

The Westerly Water Department (WWD) serves the greater Pawcatuck area, drawing all of its water from high-capacity wells (6.6 MGD). After previously experiencing bacterial contamination in one of its wells, it now treats its water prior to distribution.

The WWD has acquired land along the Pawcatuck River north of Pawcatuck and is currently seeking to add 1.0 MGD to capacity with plans for an additional 1.0 MGD in the near future.

Both major water systems could benefit from interconnection between these and other regional water systems to meet both daily demand and emergency needs. Both major water systems require additional wells during the planning period to maintain adequate capacity and margins of safety, underscore the need for stronger groundwater protection measures outlined in the Chapter 3.

Address Water Supply Issues

Fire hydrant water volume and pressure is an issue in several locations, most notably in the Borough south of Cannon Square. The water mains in the Borough are being enlarged to address the issue but other isolated problems remain and should be addressed between the affected fire departments and water companies.

The majority of Stonington's land area is not served by hydrants, relying on tanker trucks and drafting from surface water sources when available. There are no plans to expand hydrant coverage unless required by new construction.

As a result, Stonington should require the installation of fire ponds or underground fire tanks as part of new developments. In addition, a water re-supply master plan (including emergency use of private ponds) should be prepared to facilitate water availability for fire events.

Adequate utility services in appropriate locations will help to support the desired conservation and development strategies for Stonington.

Definitions

Infrastructure - in the preparation of this Plan, the term infrastructure refers to utility services such as:

- piped utilities (water, sanitary and storm sewers and natural gas);
- wired utilities (electricity, telephone, cable TV, and internet); and
- wireless communications (telephone, paging, satellite TV and radio).

Margin of Safety – The Department of Public Utility Control requires water companies to maintain the capacity to safely exceed daily demand by 15%.

Definition

Sewer Limit Line – a boundary beyond which public sewer service will not be provided. Inclusion within the sewer limit line boundary is not a guarantee that service is available or will be provided.

Electricity

There are no known long-term reliability issues relating to Connecticut Light and Power's (CL&P) provision of electricity to Stonington.

CL&P has recently installed a new substation in North Stonington and upgraded their high-voltage "backbone," which should address any issues that may have affected Stonington in the past.

Telephone Service

Local telephone service is provided by SBC. There are no known issues with the provision of this service.

Television

Cable television is available from Comcast throughout Stonington and will also soon be available from Groton Utilities. Satellite television is available from a number of providers.

Provide Adequate Sewer Capacity

The Town of Stonington Water Pollution Control Authority (WPCA) provides sewer service to the three villages, the Borough and surrounding areas utilizing three treatment plants located in or near each of the main villages.

The Mystic treatment plant is near capacity and must divert sewage to the Borough plant, bringing that plant near its capacity as well.

The Pawcatuck treatment plant should have adequate capacity for the planning period and beyond. If future redevelopment proposals within the larger Pawcatuck mills include significant residential and commercial activity, capacity will have to be closely monitored and increased if necessary to support this important economic development and village enhancement strategy.

Two options are being explored to handle growth in the Mystic and Borough systems. One option is to construct a new 2.5 million gallon per day (MGD) treatment plant with a discharge somewhere on Stonington Harbor to replace all three existing plants. The second alternative is to connect to the Groton Utilities treatment plant which is planned to be expanded to 7.5 MGD, with potential for up to 10.0 MGD capacity. The latter would require piping beneath the Mystic River.

If economically and technically feasible, Stonington should consider connecting to Groton Utility's sewer system to avoid permitting and building a fourth treatment plant, taking advantage of Groton's economy of scale.

Consider Adopting a Septic Management Plan and Ordinance

Outside of areas served by public sewers, homes and businesses rely on private septic systems. Without proper maintenance and inspection, these systems can fail and become a public health hazard by contaminating surface drinking water supplies. Stonington should consider adopting a Septic Management Plan and Ordinance to require the regular inspection and maintenance off all septic systems.

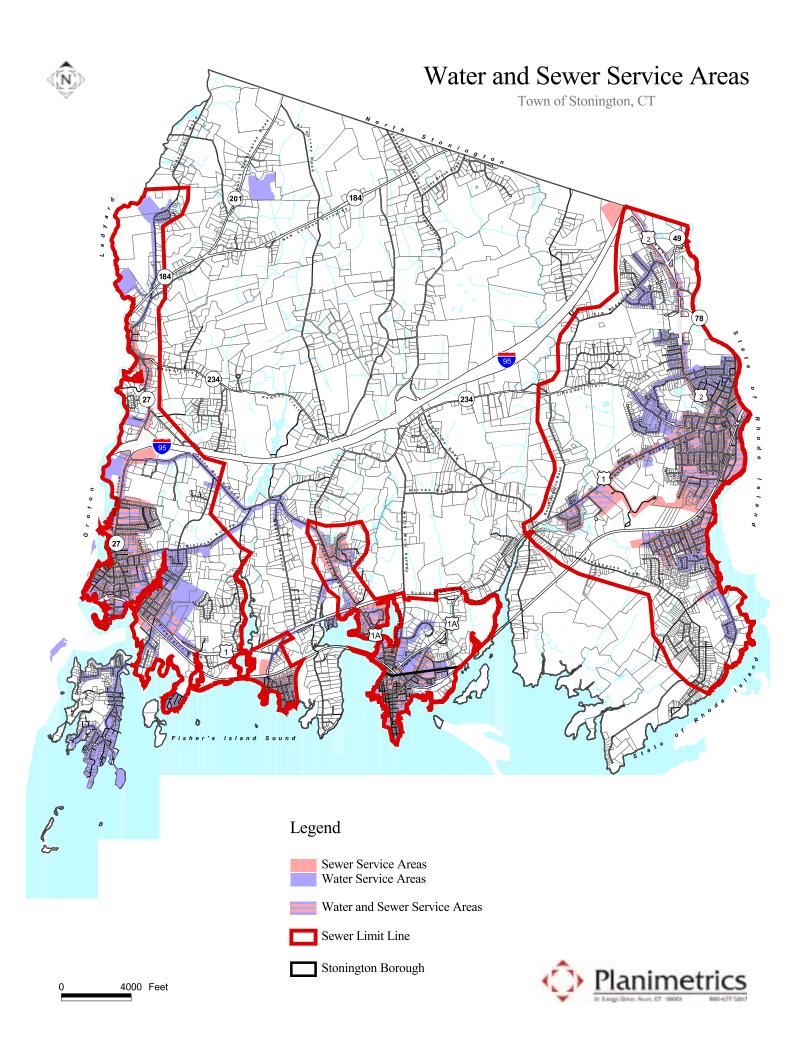
Ensure Adequacy of Other Utility Services

Electrical Service

Electricity is provided locally by Connecticut Light and Power Company (see sidebar)

Natural Gas Service

Natural gas service is provided by Yankee Gas in the vicinity of Pawcatuck and along Route 1 to Anguilla Brook, with future plans to extend service to Mystic from Route 184 in Groton. With this expansion, natural gas service should be available to support business activity within all targeted commercial growth areas, with the exception of the Borough and Exit 91 industrial area.



Definitions

Dial-up service – digital data transfer using a standard telephone line at speeds approaching 56k (56,000 bits of data per second).

Digital Subscriber Line (DSL) - shared use of telephone and digital data transmission over a standard telephone line at speeds approaching 6Mbps (32 million bits per second).

T-1, T-3 Lines - dedicated lines that carry up to 1.5Mbps and 43Mbps respectively.

Broadband Cable – shared use of the same cable that brings cable TV into homes with digital data transfer rates up to 2Mbps.

Wired Communication

Wired telephone services are available through SBC and such service is reported to be available and reliable town-wide to meet current and anticipated future needs. Cable television is provided by Comcast and Groton Utilities.

Internet and other data services are provided by SBC, Comcast and Groton Utilities in the form of dial-up service, high-speed DSL, T1 and T3 lines, and broadband cable. Such services are becoming increasingly critical for attracting a broad spectrum of commercial and industrial activity to desired locations. Both DSL and cable modem service are limited by the distance to switching facilities. SBC offers DSL service within three miles of their Mystic switching station but has no immediate plans to implement DSL service from their Mystic-Stonington station. Comcast high-speed cable modem access is generally available townwide and is soon to be joined by Groton Utilities.

Wireless Communication

Given its location along I-95, Stonington should have better than average wireless communication coverage. As a result of recent changes in Federal guidelines allowing the transfer of telephone numbers and a major shift in technology by several wireless communication providers, there will be a growing need for still more communications towers in Stonington.

Due to a Connecticut Superior Court ruling, the Connecticut Siting Council (CSC) currently has jurisdiction over all commercial telecommunication towers (municipal towers are exempt).

To ensure the most appropriate locations, minimize unnecessary towers and protect community character, Stonington should:

- proactively plan for future tower sites;
- adopt guiding principles for locating towers to be considered by applicants and the CSC and work cooperatively with them to ensure that local concerns are addressed; and
- consider repealing their telecommunication tower regulations.

Utility Strategies

- 1. Ensure adequate quantities of safe drinking water to support existing and future development.
- 2. If feasible, connect the Stonington's sewer systems into the Groton Utilities sewer system
- 3. Consider creating a septic management plan and adopting an ordinance to require the inspection and regular cleaning of septic systems.
- 4. Take a proactive approach towards telecommunication towers by planning for the most desirable future sites; adopting guiding principles for locating tower; and consider repealing the telecommunication tower regulations.